

Amendments to the Claims

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Claim 1 (original): In an electrical system with a plurality of system components carrying out the same or mutually corresponding actions, an apparatus for monitoring a proper operation of the plurality of components of the electrical system, comprising:

a plurality of dedicated monitoring devices each assigned to a respective one of the system components to be monitored, each of said dedicated monitoring devices being operable independently of the respective system component to be monitored.

Claim 2 (original): The apparatus according to claim 1, wherein said monitoring devices are connected to receive monitoring data from the respectively associated system component and are configured to compare monitoring data received from the respectively associated system component and from other system components or from other monitoring devices, for determining whether or not the respectively associated system component is operating properly.

Claim 3 (original): The apparatus according to claim 2, wherein said monitoring devices are configured to examine the monitoring data received from the system components and to decide whether the monitoring data meet predefined conditions.

Claim 4 (original): The apparatus according to claim 3,  
wherein said monitoring devices are configured to check  
whether the monitoring data received from the system  
components to be monitored and/or from the monitoring devices  
associated therewith agree or correspond to one another.

Claim 5 (original): The apparatus according to claim 3,  
wherein said monitoring devices are configured to check  
whether the monitoring data received from the system  
components to be monitored and/or from the monitoring devices  
associated therewith are in a predetermined ratio or a  
predetermined relationship with one another.

Claim 6 (original): The apparatus according to claim 3,  
wherein said monitoring devices are configured to check  
whether the monitoring data received from the system  
components to be monitored and/or from the monitoring devices  
associated therewith are predetermined data.

Claim 7 (original): The apparatus according to claim 3,  
wherein, if a given said monitoring device concludes that the  
monitoring data from one of the system components do not meet  
the predefined condition, the relevant system component is  
made to stop operating.

Claim 8 (original): The apparatus according to claim 7, wherein said monitoring device is configured to stop an operation of the relevant system component.

Claim 9 (original): The apparatus according to claim 8, wherein the system components to be monitored are constructed and operated to only process a given task when an enable signal is present.

Claim 10 (original): The apparatus according to claim 9, wherein said monitoring device is configured to generated the enable signal for the respectively associated system component.

Claim 11 (original): The apparatus according to claim 9, wherein the enable signal is formed by a logical combination of control signals generated and output by the monitoring devices associated with a respective system component depending on whether or not the monitoring data output by the system component meet the predefined conditions.

Claim 12 (original): The apparatus according to claim 1, wherein the system components to be monitored are program-controlled units.

Claim 13 (original): The apparatus according to claim 1,  
wherein the system components to be monitored are a  
constituent part of various bus units of a bus system.

Claim 14 (original): The apparatus according to claim 13,  
wherein said monitoring devices are a constituent part of  
communications controllers of the bus units, and the  
communications controllers are configured to transmit data to  
other bus units via the bus, and to receive data via the bus.

Claim 15 (currently amended): The apparatus according to claim  
13 ~~or 14~~, wherein the bus units containing the system  
components to be monitored are connected to one another via a  
plurality of buses.

Claim 16 (original): The apparatus according to claim 15,  
wherein the bus units contain a number of communications  
controllers corresponding to a number of buses connecting the  
communications controllers to one another, wherein each  
communications controller is connected to a different bus.

Claim 17 (original): The apparatus according to claim 16,  
wherein a monitoring device is provided in each of the  
communications controllers.

Claim 18 (new): The apparatus according to claim 14, wherein the bus units containing the system components to be monitored are connected to one another via a plurality of buses.

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